Amendments to the Abstract:

Please replace the Abstract with the following amended Abstract:

ABSTRACT

A method and apparatus for SSA dead code elimination includes examining a first instruction off a worklist, wherein the first instruction includes previous link and a write mask and the first instruction is an SSA instruction. The method and apparatus further includes examining at least one second instruction of the machine code, wherein the at least one second instructions are sources of the first instruction and the at least one second instructions are SSA instruction. In the method and apparatus, each of the at least one second instructions include a previous link and a write mask. The method and apparatus further includes determining if any components ~~elements~~ within a particular field of the at least one second instruction are live ~~for the at least one second instruction~~. If [[no]]none of the components ~~elements~~ are live, the method and apparatus provides for deleting the second ~~first~~ instruction from the machine code as it is determined that this instruction is extraneous, dead code.